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What Are the Relative Macroeconomic Merits and Environmental Impacts of Direct Job Creation and Basic Income Guarantees?

by

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ABSTRACT

There is a body of literature that favors universal and unconditional public assurance policies over those that are targeted and means-tested. Two such proposals—the basic income proposal and job guarantees—are discussed here. The paper evaluates the impact of each program on macroeconomic stability, arguing that direct job creation has inherent stabilization features that are lacking in the basic income proposal. A discussion of modern finance and labor market dynamics renders the latter proposal inherently inflationary, and potentially stagflationary. After studying the macroeconomic viability of each program, the paper elaborates on their environmental merits. It is argued that the "green" consequences of the basic income proposal are likely to emerge, not from its modus operandi, but from the tax schemes that have been advanced for its financing. By contrast, the job guarantee proposal can serve as an institutional vehicle for achieving various environmental goals by explicitly targeting environmental rehabilitation, conservation, and sustainability. Finally, in the hope of consensus building, the paper advances a joint policy proposal that is economically viable, environmentally friendly, and socially just.

Keywords: Macroeconomic Stability, Inflation, Unemployment, the Environment, Employer of Last Resort, Basic Income Guarantee

JEL Classifications: E42, E61, H23, J68, Q58

1 INTRODUCTION

Basic income and job guarantees are two proposals in the public interest resting on the conviction that universal and unconditional policies are more effective and fairer than programs which are targeted and means-tested. The points of agreement stem from a rejection of modern welfare and labor market policies as inequitable and inefficient, and from an open-ended commitment to guaranteeing the right to livelihood for all individuals. Both policies aim to enhance individual freedom, economic opportunity, advanced citizenship, and social inclusion via poverty eradication, human capital enhancement, community revitalization, and environmental renewal. How to reach these goals, however, is vigorously contested and there are many sources of the disagreement.

Briefly, basic income supporters see modern economies as moving towards increasingly precarious labor markets and argue that jobs cannot be the answer to a better life (Aronowitz and DiFazio 1994). In addition, while some individuals are exempt from work (due to inheritance, for example), others are compelled to work, often in "bad" jobs, for their livelihood. Therefore, it is argued that any social policy which enhances *real freedom* must give individuals equal access to nature's endowments via guaranteed income but *without* the coercion to work for it (Van Parijs 1995). Such a policy will further emancipate them from coercive employment by empowering them to say "no" to demeaning or simply compulsory labor (Widerquist 2004). Capitalism is viewed as inherently unjust in large part because of the dependency on work for income. Thus, the core objective of the basic income policy is to sever the link between the two.

By contrast, job guarantee supporters argue that basic income advocates have misconstrued the problem of income insecurity (Harvey 2003; Mitchell and Watts 2004). A well-structured guaranteed employment program that offers opportunities for meaningful work at a living wage unavoidably counters the precariousness of the labor market by eliminating unemployment, drastically reducing poverty, and enhancing the individual freedom to say "no" to bad jobs. In other words, in a monetary market economy, many of the observed labor market problems stem from insufficient quantity *and* quality of jobs. Only after the right to work has been secured for all can we

adequately evaluate the failures of market and welfare policies (Harvey 2003). Securing the right to work is the overriding objective for job guarantee advocates.

Some important criticisms are leveled at the economic viability of basic income proposals. The main charge is that they are inherently inflationary with potentially disastrous consequences for the currency. Additionally, the strong destabilizing effect of basic incomes on labor markets and wages makes the policy potentially stagflationary and hyperinflationary (Mitchell and Watts 2004; Tcherneva 2006a).

The goal of this chapter is threefold. First, it explores the macroeconomic viability of each program in the context of modern monetary production economies. Second, it elaborates on their environmental merits. Finally, in hope of consensus building, it advances a joint policy proposal that is economically viable, environmentally friendly, and socially just.

2 CAN WE PAY FOR BASIC INCOME OR JOB GUARANTEES?

Throughout this chapter, two specific policy proposals will be discussed. The basic income guarantee (BIG) of interest is that which supplies a universal payment to each citizen, irrespective of race, gender, marital status, or labor market participation, at a level sufficient to purchase the basic necessary standard of living.[1] The job guarantee program is of the type that offers a federally funded job to anyone ready, willing, and able to work, but who has not found desired private sector employment. It provides a living wage and decent working conditions. The program is modeled after recent proposals for public service employment (PSE), the government as the employer of last resort (ELR), and the buffer stock employment (BSE) models.[2]

[1] There are many incarnations of the basic income guarantee. Partial basic income and the negative income tax (NIT), for example, will not be discussed here because they are, respectively, either deficient to buy the minimum standard of living or contingent on labor-market participation. Full basic income, by contrast, is that which is set at subsistence level (Van Parijs 1992) or at the official poverty line (Clark 2004), although for Van Parijs, maximization of individual opportunities and freedom requires that it is set at the *highest sustainable* level (Van Parijs 1992, 1995, 2004).

[2] There is broad general consensus over the purpose and design of these programs (e.g., Harvey 1989; Wray 1998; Mitchell 1998). While history is replete with direct job creation programs, they tend to be of limited duration and subject to punitive means tests—two features that job guarantee supporters strongly oppose.

False notions of public finance are perhaps the single most important obstacle to implementing important government policies. Much has been written on how to pay for basic income and job guarantees.[3] Such discussion is technically relevant only for those countries which have given up sovereign control over their currencies (e.g., which are under a currency board or some other fixed exchange rate regime). Sovereign currency nations, however, (the majority of the countries in the world) do not face operational financing constraints. To be sure, they face political constraints that could be shaken with full appreciation of the workings of sovereign currencies. Although the ideology of the "tax-payer's money" is entrenched in all contemporary discourse, it is crucial to dispel its false premises to adequately understand the nature of the universal guarantees. This is the purpose of this section.

There is a large body of literature that has focused on the principles of sovereign finance.[4] There are three specific tenets I want to emphasize here. First, taxation and spending are always two independent operations, but under flexible exchange rate regimes the former do not and cannot finance the latter. A sovereign currency nation can always pay for its public programs of choice, be they basic income, job guarantees, or any other, irrespective of tax collections. This does not mean, however, that tax collections are unimportant. The second point to emphasize is that while money emission does not depend on taxes, tax collections are crucially important for maintaining the viability of the currency. In fact, in monetary production economies, the value of the currency is linked to what one must do to obtain it (for repayment of taxes or other obligations), and the public sector can directly set its terms of exchange and, therefore, affect its value. Third, in a modern market economy, unemployment is always and everywhere a monetary phenomenon that can be effectively addressed with a proper application of sovereign finance.

[3] See, for example, debates between Clark (2003) and Harvey (2003).

[4] This work is largely part of the modern money approach, also known as chartalism, neochartalism, tax-driven money, or money as a creature of the state. The approach is most closely associated with the writings of George. F. Knapp ([1924] 1973) and Abba. P. Lerner (1947), but finds support in much of the economic literature, ranging from Adam Smith to J. M. Keynes (for a detailed survey of chartalism, see Tcherneva 2006b).

2.1 Sovereign Currency Control

A most common mistake is to conflate government with nongovernment finance. While the private sector is indeed restricted by revenue or borrowing for its spending, this is not the case for the public sector, which "finances" its expenditures in its own money. This is a reflection of the single supplier (or currency monopoly) status of the latter. As the tax-driven approach to money has made clear, the purpose of taxation is not to "finance" state spending, but rather to create a demand for the currency of the Sovereign. In modern economies, such as in the United States, United Kingdom, or Japan, the currency (the dollar, pound, and yen, respectively) is not a "limited" resource of the government (Mosler 1997–98). The consolidated government (with the Treasury and the central bank as its agents) spends by crediting private bank accounts and taxes by debiting them. Thus, taxation today functions not to finance government spending but to create demand for otherwise unbacked state currencies. This way the money-issuing authority can purchase requisite goods and services from the private sector. Taxation is, in a sense, a vehicle for moving resources from the private to the public domain.

If the purpose of taxation is to create demand for state money, then logically and operationally, tax collections cannot occur before the government has provided that which it demands for payment of taxes. In other words, not only are spending and taxation two entirely independent operations, but also the former must necessarily *precede* the latter. Another way of seeing this causality is to say that government spending "finances" private sector "tax payments" and not vice versa.[5]

In sum, sovereign governments have a public monopoly over the domestic currency. Government spending precedes taxation, and spending always creates new HPM, while taxation always destroys it. Therefore *taxes are never stockpiled and cannot be respent to "finance" future expenditures*. This also means that the budget balance is an *ex post* accounting result. A "budget neutral" policy aims to gauge some subsequent accounting result, which gives no knowledge of the economic consequences of that policy.

[5] It has also been demonstrated that bonds do not "finance" government spending either. Bond sales maintain the target interest rate by draining excess reserves of high-powered money (HPM), which have been created through government spending (Wray 1998; Mosler 1997–98; Bell 2000).

While governments may not be operationally constrained in their spending, it is crucially important what programs they chose to finance. As sole suppliers of fiat currency, they also have the responsibility for maintaining its value, and certain policies are better suited to do that than others.

2.2 The Value of the Currency

Taxes create demand for government money, but they also impart value to it. Innes (1913) stressed that: "A dollar of money is a dollar, not because of the material of which it is made, but because of the dollar of tax which is imposed to redeem it." He also argued that "the more government money there is in circulation, the poorer we are." In other words, if government money in circulation far exceeds the total tax liability, the value of the currency will fall. Thus, it is not only the *requirement* to pay taxes, but also the *difficulty* of obtaining that which settles the tax obligation, that gives money its value.

This important relationship between leakages and injections of high-powered money (HPM) is difficult to gauge. Since the currency is a public monopoly, the government has a direct method at its disposal for determining its value. For Knapp, payments with state fiat measure a certain number of units of value (1973 [1924]: pp. 7-8). For example, if the state required that to obtain one unit of HPM, a person must supply one hour of labor, then money will be worth exactly that—one hour of labor (Wray 2003). Thus, as a monopoly issuer of the currency, the state can determine the value of the latter by setting "unilaterally the terms of exchange that it will offer to those seeking its currency" (Forstater and Mosler 1999).[6]

What this means is that the state has the power to exogenously set the price at which it will provide HPM, i.e., the price at which it buys assets, goods, and services from the private sector. While it is hardly desirable for the state to set the prices of all goods and services it purchases, it nonetheless has this prerogative. As it will be discussed later, through the job guarantee, the money monopolist need only set *one* price to anchor the value of its currency. By contrast, the basic income guarantee does not set *any* terms of exchange for the sovereign currency; instead it provides it unconditionally.

[6] Wray (2003) notes: "If the state simply handed HPM on request, its value would be close to zero as anyone could meet her tax liability simply by requesting HPM."

2.3 Unemployment is a Monetary Phenomenon

The last point to make in this section is that unemployment is a monetary phenomenon. This has been well demonstrated by Keynes in the *General Theory*, but the tax-driven approach to money sheds new light on what Keynes meant by "money is a bottomless sink of purchasing power…[and] there is no value for it at which demand [for it] is diverted … into a demand for other things" (Keynes 1964 [1936]).

Government deficit spending necessarily results in increased private sector holdings of net financial assets. If the nongovernment sector chronically desires to save more than it invests, the result will be a widening demand gap (Wray 1998). This demand gap cannot be filled by other private sector agents because in order for some people to increase their holdings of net savings, others must decrease theirs. In the aggregate, an increase in the desire to net save can only be accommodated by an increase in government deficit spending. Mosler explains:

> Unemployment occurs when, in aggregate, the private sector wants to work and earn the monetary unit of account, but does not want to spend all it would earn (if fully employed) on the current products of industry… Involuntary unemployment is evidence that the desired holding of net financial assets of the private sector exceeds the actual [net savings] allowed by government fiscal policy. (Mosler 1997–98)

Similarly, Wray (1998) concludes that "unemployment is *de facto* evidence that the government's deficit is too low to provide the level of net saving desired." In a sense, unemployment keeps the value of the currency because it is a reflection of a position where the "government has kept the supply of fiat money too scarce." While traditional economists argue that we must force slack on the economy in order to maintain the purchasing power of the currency, as this paper will explain, well-designed full-employment government policies can do the job.

To sum up, a sovereign government is not operationally constrained in funding public programs. But the money monopolist also has the responsibility of maintaining the value of the currency. Because at present it does not set the terms of exchange for its currency, it uses unemployment to maintain its purchasing power. Unemployment is a monetary phenomenon and a reflection of keeping the currency too scarce. With this in

mind, we can evaluate the economic impacts of implementing basic income and job guarantees.

3 MACROECONOMIC CONSEQUENCES OF THE BASIC INCOME GUARANTEE

A focal point of the basic income proposal is its budget-neutral stance (Atkinson 1995; Van Parijs 2004). Such analysis presumably stems from efforts to quash neoliberal objections to government deficit spending (Mitchell and Watts 2004). This section argues that preoccupation with budget neutrality is wrong headed for two reasons. First, it obfuscates the inflationary nature of BIG by relying on conventional notions of public finance. Second, because taxes are largely endogenous, attempts to "raise" sufficient tax revenue to counterbalance the increased spending on BIG is likely to be self-defeating with perverse macroeconomic effects.

3.1 Inflation—An Inherent Feature of BIG

As the tax-driven approach to money makes clear, taxes impart value to the currency by creating demand for it. Additionally, currency's value is determined by what is required to obtain it. In the case of a BIG, there is no such requirement, as income payments are disbursed universally and unconditionally. If a program is instituted whereby the population can freely obtain the unit that fulfills the tax obligation, the value of the currency will deteriorate sharply. While this may not happen at once, over time the value of an unconditionally provided currency will ultimately tend to zero. It must be stressed that the basic income is not inflationary because it is financed by "fiat" money, but because the currency is essentially "free" (Tcherneva and Wray 2005a) and is supplied on demand to all. Therefore it effectively invalidates the purpose of taxes—to create demand for the government's currency. We can then easily envision a scenario where the currency loses its value and private sector agents reprice their transactions in terms of some other (stronger) currency. History is replete with such examples. From the inability to collect income and corporate taxes in Russia in the late 1990s, to the provision of "free" currency through uncollateralized lending in Eastern Europe during the transition

period, to the accelerating interest rate payments on public debt in Turkey in the 1990s, all policies have resulted in a collapsing domestic currency and flight to stronger foreign currencies (for details, see Hudson 2003; Mitchell 2002; Tcherneva 2006a).

It is not only the fact that the currency is free that produces a destabilizing effect. A basic income guarantee that buys the minimum standard of living (suppose that amount is equal to $20,000 in the United States) will cause an exodus from the labor force of workers who used to "earn" their minimum standard of living by working. In other words, workers in some (possibly most) $20,000-paying jobs will opt out of the labor force (especially if they are "bad" jobs). So the next issue to investigate is the impact of basic income guarantees on labor force participation and economic activity.

3.2 The Impact of BIG on Government Budgets, Wages, Prices, and the Labor Force

Since tax collections are largely endogenous, the preoccupation with budget neutrality of BIG policies can produce tax schedules that may have perverse market effects. In fact, it may prove impossible for the BIG proposal to be budget neutral.

Some have proposed, for example, that the basic income guarantee is "financed" by a flat tax (Clark 2004; Atkinson 1995). It is reasonable to expect that the guarantee of $20,000 of basic income will induce some people in "bad" $20,000-paying jobs to exit the market (a desirable effect according to BIG advocates). The resulting impact on employment, income, and tax collections will be negative. As tax revenues fall, a budget deficit results and, although the deficit itself does not pose a problem, the compulsion will be to raise tax rates to achieve intended budget-neutrality. This tax increase would induce a new cohort of workers now earning $20,000 after-tax income to leave the labor market in hope to live on the BIG benefit. All additional tax increases attempting to catch up with rising BIG payments will further erode employment and output (again, with a logical limit of zero).

If taxes are progressive (as advocated by Aronowitz and Cutler [1998] and Aronowitz and DiFazio [1994], for example), this substitution effect may take somewhat longer to materialize, but if they are regressive (as proposed by Van Parijs [1995] and Meade [1989]), the labor force drop-out rate will be considerably higher, since regressive

taxes carry larger disincentives to work in low-wage jobs. In any event, BIG will be unlikely to achieve budget neutrality because tax collections are endogenous and never able to catch up with the rising BIG benefit payments.

The impact on the labor force and output is also negative. This seemingly "voluntary" exit from the labor force is BIG's solution to unemployment. This is a contrived result, however, as full employment is achieved by conceiving an artificial reduction in the labor supply (Mitchell and Watts 2004). In effect, full employment takes the form of "forced inactivity." In order to coax BIG recipients back into the labor market, some employers will need to offer higher wages (which, at first approximation, is a desirable effect). However, soon thereafter, the same employers will also raise prices to cover their wage cost increases. As a consequence, rising prices will erode the purchasing power of the BIG payment, undermining the economic conditions of its recipients. To maintain the objective of the universal guarantee and provide a minimum necessary standard of living, there will be pressure to revise the BIG benefit upward. Such a move will induce some additional exit from the labor market, a drop in output, a compensatory rise in wages and prices, and a further drop in BIG's purchasing power. This vicious cycle renders the income guarantee self-defeating. Note that if the benefit is continually increased, the income guarantee becomes not just inflationary, but hyperinflationary.

Simultaneously, an increase in taxes to achieve budget neutrality will induce workers on the margin to exit the labor force. The negative effect on the labor force participation due to rising BIG payments and tax rates, along with the subsequent prices increases, would lead to increasingly lower output, lower employment, and higher prices than before BIG was implemented. If policy makers continually increase the benefit to compensate recipients for the loss of purchasing power and simultaneously continually increase taxes to "fund" the rise in expenditures, the likely result will be stagflation—low employment and high prices.[7]

Since BIG never quite manages to give people the necessary purchasing power, some individuals will be forced back into the labor market, quite possibly into "bad" jobs.

[7] Mitchell and Watts (2004) also argue that stagflation is a likely result because of the expected income redistribution and deteriorating inducement to invest caused by the BIG policy.

So the implementation of BIG is likely to produce an environment of involuntary unemployment *and* higher prices.

In sum, we have to be mindful of how the government supplies the currency to the population. Erroneous logic of public finance leads to concerns with budget neutrality which tries to gauge some ex-post accounting identity that says nothing about economic performance.[8]

4 MACROECONOMIC EFFECTS OF THE EMPLOYER OF LAST RESORT

Keynes (1964[1936]) argued that "unemployment develops…because people want the moon—men cannot be employed when the object of desire (i.e., money) is something which cannot be produced and the demand for which cannot be readily choked off." As the tax-driven approach to money further makes clear, unemployment results from the chronic desire of some private sector agents to hoard net financial assets, a desire which can only be accommodated by the public sector. Hyman Minsky (1986) recognized that unemployment was a monetary phenomenon and indicated how desired financial resources can be supplied by simultaneously implementing a successful full-employment strategy. For him, it was the role of government to divorce the determination of *full* employment from the profitability of hiring. This could only be accomplished when the government created an infinitely elastic demand for labor.

Lerner (1943) also argued that it was the government's job to keep spending "neither greater nor less than that rate which at the current prices would buy all the goods that it is possible to produce." Spending below this level results in unemployment, while spending above it causes inflation. The goal is to keep spending always at the "right" level in order to ensure full employment and price stability.

Two policies, virtually identical in design, that embrace Minsky's full-employment strategy and Lerner's functional finance approach are the Employer of Last Resort (Mosler 1997–98; Wray 1998) and the Buffer Stock Employment Model (Mitchell

[8] See also Abba Lerner (1947) whose proposal for "functional finance" upheld that policy should be guided not by antiquated notions of "sound finance," but by the effect of finance on economic activity.

1998).[9] These policy prescriptions aim to eliminate unemployment and simultaneously stabilize the value of the currency. The proposals are motivated by the recognition that sovereign states have no operational financial constraints, can discretionarily set one important price in the economy, and can provide an infinitely elastic demand for labor.

Through ELR, the government sets only the price of public sector labor, allowing all other prices to be determined in the market (Mosler 1997–98). The fixed public sector wage provides a sufficiently stable benchmark for the value of the currency (Wray 1998). Since governments are not fiscally constrained, the program is implemented on a fixed price/floating quantity rule, i.e., hiring in the ELR is not limited by budget caps (more below), and spending fluctuates countercyclically. Therefore, the key macroeconomic merits of ELR that are missing from BIG proposals are its ability to stabilize the business cycle, the value of the currency, and the overall price level.

4.1 ELR Stabilizes the Business Cycle

With the job guarantee, government spending on public employment fluctuates countercyclically. In downturns, private business establishments lay off workers who find employment in the public sector. Government spending automatically increases, providing the necessary economic stimulus. Conversely, as the economy improves and private sector employment expands, workers are hired away from the ELR pool, reducing government deficit spending. This serves as a powerful automatic stabilizer that ensures that government spending is always at the "right" level to maintain full employment. By contrast, the basic income guarantee has a destabilizing effect on the business cycle, due to its inflationary bias and negative impact on participation rates and output.

4.2 ELR Fixes the Value of Currency

Since the value of the currency is determined by what must be done to obtain it, with an ELR in place, it is linked to the public sector wage. Suppose the government pays a public worker $20,000 year (for approximately 2000 hours of work), the value of the currency will be anchored by the effort expended to earn this income, i.e., its benchmark

[9] Employer of Last Resort (ELR) is Minsky's terminology, which is used throughout this paper as a generic term for direct job guarantees.

value is equal to $10 an hour. In other words, $1 is worth 6 minutes of work. Now suppose that instead of paying $20,000, the government decides to pay $40,000 to ELR workers. The hourly wage jumps from $10 to $20 per hour. It now takes workers half the time (3 minutes) to earn what they used to before the increase in the public sector wage. All else equal, the purchasing power of the currency falls by half (i.e., $10 now buys half an hour of work). By contrast, if the government cuts the yearly salary to $10,000, workers will need to work twice as much to obtain the same amount of dollars as before, which raises the currency's value.

Purchasing power is measured in terms of the labor units the currency can buy. As with BIG, the implementation of an ELR will cause a one-time jump in prices. However, since the purchasing power of the currency is tied to the labor hours it can buy, and thus its value does not deteriorate progressively as it does with BIG, there is no imperative to continually redefine the wage upward. The public sector wage provides an internally stable benchmark for prices.

4.3 ELR Enhances Price Stability

Policies of "priming the pump," such as military Keynesianism, are inflationary, as they primarily hire "off the top" by competing for the most desirable workers (Wray 1998). ELR, by contrast, hires "off the bottom" and does not introduce these inflationary pressures. In fact, it *enhances* price stability for two main reasons. First, ELR is a buffer stock program that operates on a fixed price/floating quantity rule, and second, deficit spending on public service employment is always at the *right* level.

ELR is a Buffer Stock Program Operating on a Fixed Price/Floating Quantity Rule

Economists usually fear that high levels of employment can introduce wage-price spirals. Therefore, it is necessary to show how the ELR contributes to wage stability, which, in turn, promotes price stability. As Mitchell (1998) and Wray (1998) have stressed, the key is that the ELR is designed as a buffer stock program that operates on a fixed price/floating quantity rule. The idea is to utilize labor as a buffer stock, and, as is the case with any buffer stock commodity, the program will stabilize that commodity's price.

In a nutshell, during recessions, jobless workers find employment in the public sector at the fixed ELR wage. Total government spending rises to relieve deflationary pressures. Alternatively, when the economy recovers and nongovernment demand for labor increases, ELR workers are hired into private sector jobs at a premium over the ELR wage. Government spending automatically contracts, relieving these inflationary pressures. In other words, when there is an upward pressure on the buffer stock's price, the commodity is sold, and when there are deflationary forces, it is bought. Public sector employment thus acts as a buffer stock that shrinks and expands countercyclically.

The program operates on a *fixed price/floating quantity rule*, because the price of the buffer stock (the public sector wage) is fixed and the quantity of the commodity (public sector employment) is allowed to float. The exogenous public sector wage is internally stable and, since labor is a basic commodity (employed directly and indirectly in the production of every other kind of commodity), it serves as a perfect benchmark for all other commodity prices. It is in this sense that the public sector wage provides a stable anchor for prices in the economy. This important inbuilt feature of the ELR program has no comparable counterpart in income guarantee proposals.

Deficit Spending on ELR is Always at the Right Level

This buffer stock mechanism ensures that government spending is (as Lerner had instructed) always at the "right" level. The tax-driven approach to money explains that there is nothing inherently wrong with running deficits.[10] For ELR advocates, the "right" level of deficit spending is that which ensures full employment. However, the countercyclical design of the job guarantee program also ensures that deficit spending will counteract inflationary or deflationary pressures.

Inflations or deflations occur when aggregate demand is too large or too small relative to aggregate production and the productive capacity of the economy. The key to offsetting these pressures is to boost income and spending just to that level sufficient to purchase the entire full-employment level of output, not more and not less. By design, the ELR program guarantees that any resulting budget deficit is never too big or too small.

[10] In fact, if the nongovernment sector runs a surplus, i.e., hoards net financial assets, the government sector (by accounting identity) will run a deficit.

Government spending will increase until unemployment is eliminated, at which point deficits will stop growing, ensuring that aggregate demand does not exceed the full-employment level of aggregate supply. Conversely, if unemployment grows again, so will deficit spending, bringing the two into equilibrium. In other words, the automatic countercyclical and stabilizing feature of the ELR program guarantees that spending will grow only up to the full-employment level of output.[11] By contrast, basic income programs cannot claim any such countervailing force to price demand changes.

ELR projects also support a noninflationary environment by enhancing human capital and private sector efficiency and growth. Unlike BIG, ELR *directly* provides for the maintenance and appreciation of human capital, as training and education are explicit features of the program. Furthermore, by addressing the problem of unemployment head-on, ELR also reduces the social and economic costs associated with it. Finally, private sector productivity is enhanced by directing ELR projects to develop public infrastructure, provide for costly environmental cleanup, and reduce rigidities linked to high levels of capacity utilization.

It has been increasingly recognized that public policies must enhance not only macroeconomic stabilization, but also environmental sustainability. The next section specifically focuses on the environmental merits of basic income and job guarantees.

5 ENVIRONMENTAL ASPECTS OF BASIC INCOME AND JOB GUARANTEES

There is significant common ground that informs the environmental concerns of BIG and ELR advocates. Much of it rests on a rejection of contemporary growth-at-all-cost macroeconomic policies, which cause unequal income distribution, wasteful overconsumption at the top, and poverty and destitution at the bottom.

[11] There has been some confusion about the operation of the ELR (Sawyer 2003). It is important to note that ELR eliminates unemployment by offering a job to everyone willing and able to work, not by increasing aggregate demand. While a rise in aggregate demand may result as a consequence of the program, this does not have to be the case. The government can eliminate unemployment via the ELR while simultaneously reducing its spending on other programs and raising taxes. This is hardly a desirable recommendation, but it illustrates that ELR can eliminate unemployment in the face of falling aggregate demand. It does so by offering a job, not by "pump priming" (for details, see Mitchell and Wray 2005).

5.1 Growth, Income Distribution, and the Environment

ELR advocates view policies that aggressively aim to stimulate private investment as destabilizing, inflationary, and environmentally damaging. Hence, the private sector is unable to guarantee the attainment and preservation of either full employment or environmental sustainability. For this reason, the public sector has an important role to play in addressing both objectives. The specific proposal advanced is that of "green" public sector jobs (Forstater 2004). For basic income supporters, on the other hand, eco-friendly outcomes spring naturally from: 1) the expected redistribution toward more equal incomes; 2) subsequent reduction in growth rates;[12] and 3) suggested program financing through pollution or resource taxes. I will discuss growth and income distribution first and will return to eco-friendly taxes later.

Continuous growth rests on sustained and rising rates of economic expansion, increasing resource extraction and their maximum utilization. The underlying competitive forces of cost minimization often imply large-scale industrial pollution (as environmental cleanup is expensive and unprofitable), while uneven income distribution that comes with modern pro-growth policies induces some environmentally damaging activities among the poor (e.g., Haitian and Amazon deforestation). Those forces are at odds with environmental sustainability and could ultimately lead to the Tragedy of the Commons (Lord 2003).

BIG is expected to produce environmentally desirable outcomes by equalizing income distribution at the bottom. This will mean, for example, that indigenous people in Brazil will no longer need to log the Amazon for subsistence. It would also means that wasteful consumption at the top may continue unimpeded unless there is considerable income redistribution and a decline in overall growth.

Growth is checked by the fact that BIG provides an opportunity to withdraw from the labor market and engage in nonmarket activities—an outcome which some believe should be celebrated (e.g., Murray 1997). If this is a likely scenario, all the negative consequences from a reduction in the labor force discussed above will apply with full force, making BIG economically infeasible.

[12] Although there is no consensus around this outcome.

An important question to consider is how BIG would trigger ecoconscientiousness. Will the logging of the Amazon stop or will it be seen as a source of *extra* income that would improve one's standard of living above and beyond what is afforded by the minimum guaranteed income? Will U.S. consumers buy more organic food and fewer sport utility vehicles, or will the poor also queue up for the next (now affordable) gas-guzzler? What will make companies opt for environmentally clean technology, especially in the face rising labor costs due to a mass exodus of workers from the labor force? None of these results are guaranteed by the provision of basic income. To be fair, BIG supporters have argued that the program should be supplemented by other socially desirable policies (e.g., environmental regulations), but in this case any environmental benefits will stem from the latter and not from the provision of basic income. To this end, it is hard to believe that in modern capitalist economies the sole provision of income will set in motion an extraordinary chain of events that will entice individuals to *voluntarily* opt for "simpler and more environmentally-friendly lifestyles" (as it is argued, for example, in Cohen and Rogers [2001]). The stark reality is that those with the simpler lifestyles are those who have no income; the access to guaranteed income will now allow them to partake more actively in mainstream society and culture which will likely lead to more complex consumption patterns in the race to keep up with the Joneses or simply improve one's own standard of living. In such circumstances, the environmental outcomes from guaranteeing income are ambiguous.

ELR proponents agree that creating jobs at any price (e.g., at the expense of the environment) is not a viable policy option. Minsky had long argued that getting to full employment by stimulating aggregate demand could lead to inequitable and destabilizing outcomes, as priming the pump tends to be environmentally unsustainable, inflationary, and an overall unreliable means of achieving and maintaining full employment.

It seems that BIG advocates reject job guarantees in large part because they falsely equate them with contemporary pro-growth, pro-investment, pro-profit practices. It is perhaps not well understood that ELR decouples the determination of full employment from any specific level of economic growth. At the margin, full employment is secured by the public sector directly hiring all who wish to work and does not depend on growth, aggregate demand, investment subsidies, or tax incentives. Growth is a

consequence of, and not a precondition for, full employment. Furthermore, when ELR jobs are designed with the environment in mind, we are effectively redefining growth to include environmentally friendly output and employment.

Note that BIG proposals are still dependent on growth for the source of their financing (e.g., income taxes). Thus, the desires of BIG to check growth and its dependence on growth for financing are fundamentally at odds with each other. Such a conundrum cannot be satisfactorily resolved. As argued above, nations with sovereign and freely floating currencies do not face operational financing constraints, and thus, the financing of BIG need not depend on a particular level of growth. BIG supporters, however, are unlikely to embrace the tenets of modern finance because these propositions immediately render their policy inflationary.

Furthermore, if BIG indeed proves to be inflationary (or hyperinflationary) then it will produce more unequal income distribution when the poor opt out of "bad" jobs in hopes to live on the basic income while the value of that payment is gradually being eroded. In this case it is likely that the poor will be far from emancipated from compulsory work and may be forced back into the labor market. In addition (even if they so desire), they may be unable to engage in more environmentally friendly activities such as buying locally grown food or ecological appliances—as all will still be prohibitively expensive. *Therefore, any environmentally friendly consequences the access to income might have will evaporate along with the deflated real value of that income.*

By contrast, ELR does not depend on specific levels of growth for its implementation, but it is a pro-growth policy to the extent that it stabilizes the business cycle, enhances human capital, and improves the investment environment. In addition, its commitment to eco-friendly public service jobs contributes to environmentally sustainable growth. What an eco-friendly ELR program looks like is explored in the next section.

5.2 Public Service Employment and the Environment

ELR advocates are interested not only in offering unconditional employment, but also in structuring the program in a way to addresses very specific economic concerns—environmental degradation, urban blight, gender inequality, deficient elderly and child

care, inadequate training and education, and others. The strong environmental concerns stem specifically from the acknowledgement that there is an immediate need for environmental cleanup and restoration that the private sector has no incentive to perform at the requisite level. ELR jobs should be part of a comprehensive program for environmental sustainability and can be the first and immediate step toward environmental rehabilitation and conservation. Many of these tasks can be undertaken by relatively unskilled labor. Forstater (2004) has called for a "Green Jobs Corps" as an important model for ELR work, where an environmental tax is incorporated explicitly in the proposal and a detailed application of eco-friendly tasks is advanced. Some of the ELR jobs will include reforestation, water, soil, and air cleanup, aggressive recycling efforts at the local and national level, insulation and weatherproofing for residential and some commercial buildings, and the conversion to alternative energy of all public industries and institutions.

Separately, with the pressing climate change, cities, municipalities, and nations alike are beginning and will continue to face increasing costs to their economies. For example, a moderate sea level increase will inundate coastal regions, causing flooding, collapsing infrastructure, and possible forced migration of hundreds of millions of people worldwide (Goodstein and Doppelt 2006). Such large-scale problems will require a timely and comprehensive response. The recent experience with Hurricane Katrina, for example, has demonstrated that it is the public sector that must be prepared to spring into action. An organized and ready public jobs corps could respond before, during, and after a crisis. ELR workers can fortify levies and evacuate residents in advance, and they can reconstruct ports, piers, and other much needed infrastructure in both the devastated areas and the healthy communities overwhelmed by a migrating population. Vanden Heuvel (2005) has called for a new "New Deal" to rebuild New Orleans. This is the kind of work ELR workers can perform.

Infrastructure in many developed nations is crumbling. For example, in 2007, one out of every eight highway bridges in the United States were structurally deficient and close to one out of every seven were functionally obsolete (Department of Transportation 2007). In much of the underdeveloped world, nonexistent infrastructure is a major obstacle to economic development. An ELR program can undertake repair and

construction of infrastructure at the needed level. In sum, a well-structured ELR can demonstrate that full employment does not conflict with environmental sustainability; it can, in fact, enhance it.

5.3 Environmental Aspects of BIG

The environmentally friendly outcomes of BIG policy are likely to emerge not from the provision of guaranteed minimum income, but from the various proposals advanced for its financing that rely on resource use and pollution taxes. There are numerous policies for equitable land use and egalitarian resource allocation, under the names of Sky Trust, Alaska Permanent Fund, and the Earth Dividend, to name a few. Each of these either represents equal access by all citizens to earth's resources (Earth Dividend) or to the profits generated from using these resources (Sky Trust and Alaska Permanent Fund). These programs, however, are not the same as the Basic Income Guarantee discussed here. Some scholars have proposed that BIG should be financed through pollution or other ecological taxes (e.g., Van Parijs 1995). What I argue here is that the agenda for tax reform that BIG supporters suggest can be an essential feature of any policy for social reform. However, resource or pollution taxes should not be conceptualized as *financing instruments* for BIG. Indeed, if BIG supporters insist that pollution or any other resource or environmental taxes "pay" for the BIG program, the policy will be self-defeating, as resource-based taxes cannot be relied upon to provide the income that will buy the minimum necessary standard of living.

A resource-based tax aims to discourage the use of a particular resource. With regard to taxes on pollution or resource use, the most effective tax policy is one which manages to generate the least amount of revenue, i.e., that which has deterred pollution or the depletion of the resource. To link BIG to such a tax would mean either that: 1) when the tax is successful in protecting the environment, sufficient revenue is not generated to cover all recipients or that 2) the tax is ineffective, and more pollution and environmental abuse may be taking place in order to generate sufficient revenue for BIG coverage. In the latter case, especially if BIG is very popular, there may even be a perverse incentive to subsidize, say, oil production, so that its increased output can later be taxed in order to keep the BIG fund "solvent."

In sum, an environmental tax policy is an important policy objective, but it would be a mistake to structure BIG or ELR as dependent on ecological taxes for their financing. If, for example, "bad" resource use is taxed (such as pollution or oil drilling) and the funds are invested in "good" resource use (say solar or wind energy production), over the long run there will be greater incentive to move away from dirty to clean energy. However, these funds will not be able to secure the minimum required standard of living, as the Alaska Permanent Fund has demonstrated, for example, where the individual payments have never exceeded $2000 per person annually. Such a "fund" may be an effective environmental policy, but not an effective basic income policy.[13] Again, the proposition of this paper is that if the basic income cannot buy the minimum standard of living for all, the policy is neither effective nor just.

To summarize, for BIG supporters the provision of income is the overriding objective and the "green" consequences are expected to naturally ensue from there. However, it seems more plausible that the environmental benefits of BIG stem from the tax mechanisms discussed and not from the provision of income to all. By contrast, for ELR advocates, guaranteeing full employment is essential through targeted job creation into areas that repair, support, and enhance the environment. Eco-friendly activities are explicitly incorporated in the institutional setup of ELR jobs. Since there are no operational constraints for funding either policy, tax reform for environmental purposes is an entirely different matter—a worthy goal in its own right.

6 THE ROAD TO PARTICIPATION AND THE PROMISE FOR A JOINT PROPOSAL

Since the objective is to provide for all members of society, and not just for the economically active population, a joint proposal is necessary. To be economically viable and environmentally friendly, however, it needs to have several key ingredients. First, it must tie the provision of income to public service work in the form of fixed hourly pay. Second, it needs to provide unconditional income support for the young, the elderly, and

[13] Even this outcome is debatable. The Alaska Permanent Fund, for example, invests its oil earnings into a portfolio of assets, many of which come from industries that are not eco-friendly. The dividend payment to Alaskans is therefore linked to how profitable these industries are.

the disabled. Third, it must be carefully structured according to the biophysical conditions of the environment and support environmental preservation, rehabilitation, and renewal.[14]

Such a proposal is desirable, because inactivity, especially due to involuntary unemployment, has far-reaching consequences beyond the single dimension of a loss of income (Sen 1999). Therefore, BIG's focus on the provision of income alone will not provide the necessary remedy. By contrast, ELR's concern with currency stability should not take precedence over the objective of creating "good" jobs. Given the many common goals income and job guarantees share, a joint proposal that is environmentally sustainable is a promising alternative for providing the requisite standard of living to all.

There are many sources we can consult when designing such a proposal. For example, Atkinson's (1995) participation income and White's (2003) civic minimum offer some possibilities for marrying ELR with BIG.[15] These proposals emphasize the need to define work very broadly, foster social inclusion, enhance human capital, and improve the overall "socioeconomic situation" (Clark 2003; Fitzpatrick 2003). Minsky's (1986) discussion of the "the road to participation" also provides some of the ingredients for such a joint policy. For him, the road to participation means creating permanent programs whose main purpose is to provide "public services, environmental improvements … as well as the creation and improvement of human resources."

This paper explained the economic imperatives that make it necessary to tie the hourly income benefit to an hour of public work. Nonetheless, this coercive feature will still trouble BIG advocates, so the challenge is to design a proposal that enhances individual freedom by allowing people to determine their own pursuits. One way to do this is to allow the individuals to choose, and even define, the kind of activities they wish to perform. Although involvement in the community is compulsory, the kind of work performed is not.

To see how this can be accomplished, we can look to the job guarantee program that was recently implemented in Argentina.[16] While this program is only available to unemployed heads of households, it offers insights for designing a joint policy. The

[14] For explanation of these biophysical conditions, see Forstater (2004).
[15] Fitzpatrick (2003), Galston (2001), and Anderson (2001), among others, support some conditionality purporting that there must be a reciprocal obligation on the part of the basic income recipient.
[16] The institutional details and macroeconomic effects of this program have been discussed in detail in Tcherneva and Wray (2005b).

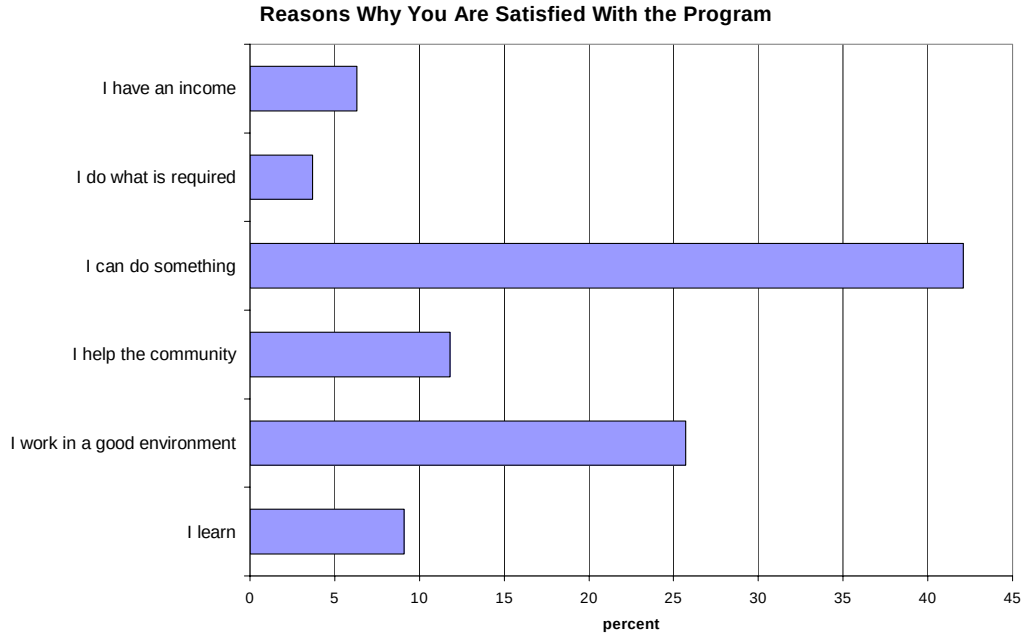
Argentinean program (usually referred to as *Jefes*) intended to deal with the massive poverty, unemployment, and social dislocation that resulted from the 2001–2002 crisis.

After the decision was made to fund the job guarantee, the federal government only provided the general guidelines for administering the program. The actual management and administration was done at the local level. The municipalities evaluated the general needs of their communities and their available resources. Subsequently, they made requests for proposals for specific projects that would provide the goods and services that were most needed in the communities.

The *Jefes* plan was in fact started as a form of basic income. After registering all the unemployed heads of households, they immediately started receiving income. In the transition period, many did not work, as it took some time to design, approve, and implement the proposed projects. However, the program was up and running in four months, and soon thereafter beneficiaries started taking up the newly created public sector jobs.

In fact, most of the actual activities were designed and proposed by NGOs, local government organizations, labor movements, and the unemployed themselves. But they had the forum and institutional support that allowed them to engage in the kind of activities they wished to do. Because nutrition was a top priority in the poorest communities, many such projects included community kitchens, bakeries, or pastry shops. Other projects converted previously barren plots into arable land, where the beneficiaries set up their own agro-cooperatives. Yet others centered solely on landfill cleanup and recycling. In some of the poorest areas, resident had organized *en masse* to recycle cardboard and plastic from Buenos Aires's large garbage dumps. Some projects used recycled plastic to make toys and Christmas tree ornaments, others collected and repaired old and ragged books and clothes from wealthier neighborhoods to distribute to newly built community centers in the poorest neighborhoods.

Official surveys of program participants indicate that having an income is not among the main reasons for satisfaction with the *Jefes* plan. Beneficiaries enjoy being in the program because they have the opportunity "do something," to work in a "good environment," to "help the community," and to "learn" (Figure 1).



SOURCE: Ministry of Labor, Employment and Social Security, Argentina

In other words, it is possible to design a program that will guarantee an income to all, but will require able-bodied persons to participate in community work. Such a program can be structured to give people considerable freedom (subject to some general guidelines) to determine the kind of community work they would like to perform. Such activities can include not only helping in the community, but also engaging in individual artistic pursuits. Such programs can also be motivated by concerns for the environment.

By marrying the participation income with the job guarantee, we design a policy that offers the institutional vehicle for achieving other desirable social goals. Whether the objective is environmental cleanup, reforestation or recycling, whether it aims to assist young parents with family planning or to address issues of domestic violence, spousal and child abuse, and male high school dropout rates, public sector jobs can be oriented to deal with such problems. In fact, Argentina provides many examples of public sector projects that deal with all of the above. Once the institutional framework for community work is established, it can be directed to address other social problems as well.

Finally, a joint policy will enjoy prolonged success if motivated by an awareness that valuable work is not only that which is profitable, but also that which is socially useful and environmentally sustainable. In other words, the activities in this program will be targeted toward adequate social provisioning and not toward profit making. The

"production for use" in the public sector will not compete with the "production for profit" of the private market. Government jobs will provide services that are presently outside the purview of profit making enterprises, e.g., environmental cleanup, childcare, elderly care, homeless shelters, community kitchens, and other.

7 CONCLUSION

The dichotomy between policies that target "only income" or "only employment" is no longer constructive. An effective safety net must provide both a guaranteed source of income *and* a guaranteed source of work opportunities in meaningful, life-enhancing activities. In a monetary production economy, however, it is important to tie the provision of income to participation in the community for everyone who is able to contribute. This way the socioeconomic situation is improved by creating an economically viable policy that stabilizes the price level and the business cycle, while enhancing the meaning of work and individual freedom.

Whether universal guarantees stand a chance depends largely on the political will and dominant ideology, but the first step is to gain a full appreciation of their macroeconomic consequences and institutional aspects. Then we can constructively move to designing economically viable and environmentally friendly universal assurances in the public interest.

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